

Wetlands Research Associates Inc.

*2169 East Francisco Blvd., Suite G
San Rafael, California 94901
415/454-8868
415/454-0129*

EXECUTIVE SUMMARY

Technical Memorandum Determination of Environmental Impacts for the Coyote Valley Specific Plan

This technical memorandum provides an evaluation of the potential impacts to biological resources for three Coyote Valley Specific Plan (CVSP) Alternatives. The Coyote Valley Core Composite Plan (Core Plan) was analyzed for potential impacts to protected sensitive habitat types such as wetlands and riparian habitat and to federal or state endangered species and/or their habitat. The Core Plan and two other project alternatives were analyzed based on biological and regulatory consequences of differing alignments of Fisher Creek. Potential impacts were based on previous studies of biological resources within the CVSP area.

Potential impacts to wetlands, waters, and riparian areas as a result of the development of the Core Plan include up to 20 acres of impacts to wetlands, 30,595 linear feet (10 acres) of impacts to streams, 6 acres of impacts to ponds, and 23 acres of impacts to riparian areas. Many of these impacts are a result of the restoration of Fisher Creek to its historical alignment, which would improve the overall habitat value of the Fisher Creek corridor. In addition, potential impacts could also occur to habitat for the federally threatened California tiger salamander, bay checkerspot butterfly, California red-legged frog, western burrowing owl, and salmonids as a result of the development of the Core Plan.

The analysis of the biological and regulatory consequences of the differing alignments of Fisher Creek contained in the three CVSP alternatives found that all three plans are technically feasible, although the two alternatives involving realignments of Fisher Creek would require more study before implementation. All three alternatives would require similar levels of permitting and consultation with the federal, state, and local regulatory agencies. However, the direction of Fisher Creek into a focal lake would not likely be favored by these agencies and therefore be less feasible on a regulatory level. Fisher Creek in its current alignment would likely not be ecologically sustainable as it would not be able to accommodate the flow regimes imposed by urban environments. Directing the flow of Fisher Creek through a focal lake would likely have major impacts on the water quality of Fisher Creek and Coyote Creek, affecting the long term ecological sustainability of these resources. As currently designed, the Core Plan would impact the greatest amount of sensitive habitat among the three reviewed plans. However, if final project designs reduce these impacts and incorporate necessary mitigation, this would

be the most ecologically sustainable alternative.

Wetlands Research Associates Inc.

*2169-G East Francisco Blvd.
San Rafael, CA 94901
415/454-8868
415/454-0129*

Technical Memorandum:

Determination of Environmental Impacts for the Coyote Valley Specific Plan Preferred Alternative

I. Introduction

The purpose of this memo is to provide an evaluation of the potential impacts to biological resources for three Coyote Valley Specific Plan (CVSP) Alternatives. WRA was requested to examine (1) potential impacts to sensitive biological resources (protected habitat types such as wetlands and riparian habitat and federal or state endangered species) that could occur as a result of development of the CVSP Core Composite Plan, and; (2) differing biological and regulatory consequences of three alternatives containing differing alignments of Fisher Creek. This document provides the methods, assumptions, and results of these analyses.

II. Methods

CVSP Core Composite Plan Analysis

Potential impacts to sensitive biological resources for the CVSP Core Composite Plan were identified based on a review of background literature and previous studies performed by WRA regarding habitats and special status species present in the CVSP area. Following the identification of potential impacts, the impacts were calculated using a Geographic Information System (GIS) database. GIS data from WRA studies of wetlands, streams, riparian resources, and special status wildlife species was overlain on a digital version of the draft CVSP Core Composite Plan. All areas that were identified in the Core Composite Plan as being planned for development (i.e., housing areas, roads, focal lake, and infrastructure) were included in the analysis of impacts. Sensitive biological resources (habitat or species presence) in areas planned for development were considered impacted. Resources that were shown in the Core Composite Plan as being present in their original position and alignment following development or were contained in areas identified as open space by the plan were considered avoided. Additional potential impacts that were not quantifiable at the present time were also identified and are discussed in the results section of this document. All calculated impacts are estimated and will be revised as more information regarding specifics of the Core Composite Plan become available.

Analysis of Differing Alignments of Fisher Creek

WRA also analyzed the biological and regulatory consequences of alternative alignments of Fisher Creek contained in three CVSP alternatives. The alternatives examined included:

- *Alternative 1:* An environmental footprint that is based on regulatory ease through avoidance of Fisher Creek and does not propose a lake;
- *Alternative 2:* An environmental footprint that incorporates multiple small lakes and enhances Fisher Creek; and
- *Alternative 3:* Restoration of Fisher Creek to its natural flow line and a focal lake (Core Composite Plan).

The analysis was performed using a specific set of filtering criteria provided by the City of San Jose. As not all of the filtering criteria were applicable to an environmental resources analysis, WRA performed the analysis of the three alternatives using the following criteria: (a) technical feasibility; (b) regulatory feasibility; and (c) ecological sustainability.

III. Results and Discussion

Core Composite Plan Analysis

Direct impacts to sensitive habitats that would occur as a result of the Core Composite Plan for Coyote Valley are summarized below.

Table 1. Potential impacts to biological resources for the CVSP Core Composite Plan.				
	Wetlands	Streams	Ponds	Riparian Areas
Total Impacts	20.1 acres	30,595 linear feet 9.9 acres	5.7 acres	23.1 acres

The impacts to wetlands are largely associated with the re-alignment of Fisher Creek and the construction of the floodway. This re-alignment and floodway construction will require excavation and filling of wetlands; however, there is also an opportunity to restore wetlands within the flood plain. While this loss would be considered temporary; the construction activity would a permit and necessitate mitigation. Other losses to wetlands include alignments of the parkway, lost of wetlands along Fisher Creek, and development. The stream impacts are associated with the loss of the existing man-made Fisher Creek and the small tributaries to Fisher Creek within the Urban Reserve and the North Coyote area. The impacts to ponds are associated with the proposed development for North Coyote. The impacts to riparian areas are the loss of habitat along the current alignment of Fisher Creek and the tributaries to Fisher Creek in the Urban Reserve.

The Core Composite Plan could also directly impact the federally threatened California Tiger

Salamander (CTS), which is known to occur in at least one of the ponds along the western border of the Urban Reserve. Development proposed in this area may impact an unquantified amount of CTS estivation (summer hibernation) habitat near this pond. The additional connector ramps to Highway 101 have the potential to impact serpentine grasslands that occur along Highway 101 east of the CVSP area. A water reservoir might also be constructed to support this project and could have direct impacts to serpentine habitats including critical habitat for the Bay Checkerspot Butterfly. California red-legged frog habitat may be impacted by interchanges to be located along Coyote Creek. Finally, burrowing owl habitat will be impacted by the project through loss of known nesting site and foraging area.

Indirect impacts may occur to salmonids in Coyote Creek as a result of overflow from the focal lake into Fisher Creek. Lakes and ponds along creek systems tend to raise water temperatures, increase sedimentation, and provide habitat for non-native predatory fish which can impact salmonid populations through reduction of habitat quality and predation. The focal lake adjacent to Fisher Creek has the potential to overflow into Fisher Creek during major storm events. Although this would occur seldomly, there is potential for release of predatory fish, large sediment plumes, and pollutants from the lake into Fisher Creek, which may impact salmonids in Coyote Creek.

Finally, indirect impacts to Bay Checkerspot butterfly may result from air pollution discharge. This impact was noted by the US Fish and Wildlife Service for the North Coyote project and has yet to be analyzed for the Composite Core Plan.

Analysis of CVSP Alternatives

The results of this analysis are more generalized than the review of the Core Composite Plan due to less detail contained in the plans for the two other alternatives.

(A) Technical Feasibility:

All three alternatives are technically feasible from a biological perspective. All of the alternatives will require permitting by the federal and state resource agencies which may affect their ability to be implemented. However, it is not likely that any of the alternatives would result in an appeal by the Environmental Protection Agency nor a jeopardy opinion by the US Fish and Wildlife Service.

Alternatives 2 and 3 would require additional study for proper implementation due to changes in the flow and alignment of Fisher Creek.

(B) Regulatory Feasibility:

All three alternatives will require the following permits or agreements:

- Streambed Alteration Agreement (SAA) from the California Department of Fish and Game (CDFG),

- Section 404 Individual Permit from the U.S. Army Corps of Engineers (Corps),
- Section 401 certification and National Pollutant Discharge Elimination System (NPDES) permit from the San Francisco Regional Water Quality Control Board (RWQCB),
- Section 7 consultation from U.S. Fish and Wildlife Service (USFWS),
- a Santa Clara Valley Water District (SCVWD) permit,
- a heritage tree removal permit from the City of San Jose, and
- a Riparian Corridor study for Santa Clara County.

Because of the size and complexity of the CVSP, all alternatives are likely to require major permits for the agencies and the timing of those permits is likely to be the same despite differences in impacts and mitigation. The opportunities for mitigation within the CVSP are likely to be sufficient to meet the needs of direct impacts to habitats and species, based on current information. However, indirect impacts associated with loss of CTS estivation habitat and air pollution impacts to serpentine habitat may need to be mitigated through off-site acquisition.

Alternative 1: Maintaining Fisher Creek in its current alignment meets the base requirements set forth in the Clean Water Act and the Regional Board Basin Plan in that it “avoids” wetlands and riparian areas. However, the increased flows from urban runoff would cause further erosion and degradation of the stream. As a result, Fisher Creek would have to be improved or altered to handle the change in the land use of its watershed. In addition, the “new reach” of Fisher Creek constructed to handle flood flows may result in diversion of some of the water in the existing channel. A portion of this new reach would impact existing farmed wetlands. While on the surface, this alternative may appear to avoid impacts to wetlands and riparian areas, it will still require major permits from the federal and state agencies.

Alternative 2: This alternative would restore Fisher Creek to its historic alignment as can best be assumed from the available data while maintaining the existing alignment. While resulting in greater fill in wetlands where the new alignment crosses, it may be viewed as a restoration of the historic Creek. Loss of wetlands and riparian habitat would be mitigated within the new alignment of the floodway. This alternative would require consultation DFG and USFWS due to the potential for impacts to water quality and special status species such as steelhead and CTS as a result of the incorporation of ponds and redirection of flow from Fisher Creek into the focal lake.

Alternative 3: This alternative has many of the same features and issues as Alternative 2; however, it will result in the loss of current alignment of Fisher Creek. The mitigation required for this alternative would likely be highest of the three alternatives.

(C) Ecological Sustainability

Alternative 1: This alternative would be the most effective at maintaining the current quality of water resources as it would directly impact the smallest amount of existing resources. However, it is not likely that Fisher Creek will be sustainable in its current alignment following the development of the CVSP area. Water resources in the CVSP

area have been extensively modified by agricultural activity and do not represent natural conditions in the site, lowering the long term value of habitat for biological resources.

Alternative 2: This alternative could reduce the quality of existing water resources in the CVSP area. The flow of Fisher Creek through multiple small lakes and the focal lake would likely reduce the water quality in Fisher Creek and Coyote Creek, contributing to higher water temperatures, altering sediment dynamics, and favoring non-native species. However, the amount of other biological resources, such as riparian areas and wetlands, conserved, created or enhanced by this alternative is potentially the highest of the three alternatives. In addition, the placement of the newly aligned Fisher Creek near the western foothills would provide a natural buffer between the development and the undeveloped areas.

Alternative 3: If properly designed, the realignment of Fisher Creek has the potential to enhance the current quality of water resources in the CVSP area, improving the habitat quality for steelhead and other special status species. However, this may come at the expense of loss of existing riparian habitat along the existing Fisher Creek and wetlands currently present in the proposed area of realignment, which would require additional mitigation. This mitigation would be most feasible and ecologically sustainable if implemented within the realigned Fisher Creek corridor.

Conclusion

All three CVSP alternatives are feasible from a biological perspective. Alternative 1, while seemingly avoiding impacts to wetlands and riparian areas, will have indirect impacts associated with changes in land-use. In addition, the long term sustainability of these resources in their current state and alignment following development of the CVSP area is questionable.

Alternative 2 could greatly reduce the value of existing riparian habitat along Fisher Creek and Coyote Creek both as a result of alteration of hydrology as well as construction of lakes and ponds within or adjacent to Fisher Creek. However, Alternative 2 preserves more wetlands and riparian area than does Alternative 3 and has the potential to create or enhance more wetland and riparian area than any other alternative. It also provides a buffer between the western foothills and the development of the CVSP.

Alternative 3 impacts riparian areas through the filling of the current alignment of Fisher Creek and the floodway construction within existing farmed wetlands. However, most of the impacts for Alternative 3 are a result of the realignment of Fisher Creek. This realignment could improve the habitat value of Fisher Creek and Coyote Creek over the long term, but reducing impacts to existing wetlands should be considered in the specific design of the new channel so as to reduce the amount of mitigation required.